

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. – 10. canceled.

11. A plant nutrient reduction system comprising:

a microbially enhanced inorganic fertilizer composition for application to a plant comprising,

a nitrogen:phosphorus: potassium (N:P:K) ratio wherein nitrogen is from 0 to about 32, phosphorus from 0 to about 13, and potassium from 0 to about 12, wherein at least one of nitrogen, phosphorus or potassium is at least about 2, and

at least about 1×10^5 microorganisms per gram of fertilizer composition,

wherein the application to a plant of the microbially enhanced inorganic fertilizer composition in an amount at least 25% less by weight than the application to a plant of a non-microbially enhanced inorganic fertilizer composition, results in comparable plant growth or yield in an equivalent time period.

12. The system of Claim 11 wherein the N:P:K ratio comprises nitrogen from about 6 to about 32, phosphorus from about 4 to about 13, and potassium from about 3 to about 12.

13. The system of Claim 11 wherein the microorganisms are present from at least about 1×10^5 to about 5×10^7 microorganisms per gram of fertilizer composition.

14. The system of Claim 13 wherein the microorganisms are selected from the group consisting of bacteria, fungi, viruses or mixtures thereof.

15. A plant nutrient reduction system comprising:

a microbially enhanced inorganic fertilizer composition for application to a plant comprising,

a nitrogen:phosphorus: potassium (N:P:K) ratio wherein nitrogen is from 0 to about 32, phosphorus from 0 to about 13, and potassium from 0 to about 12, wherein at least one of nitrogen, phosphorus or potassium is at least about 2, and

at least about 1×10^5 microorganisms per gram of fertilizer composition,

wherein the application to a plant of the microbially enhanced inorganic fertilizer composition in an amount at least 25% less by weight than the application to a plant of a non-microbially enhanced inorganic fertilizer composition, results in comparable levels of nitrogen, phosphorus, or potassium in the plant.

16. The system of Claim 15 wherein the N:P:K ratio comprises nitrogen from about 6 to about 32, phosphorus from about 4 to about 13, and potassium from about 3 to about 12.

17. The system of Claim 15 wherein the microorganisms are present from at least about 1×10^5 to about 5×10^7 microorganisms per gram of fertilizer composition.

18. The system of Claim 17 wherein the microorganisms are selected from the group consisting of bacteria, fungi, viruses or mixtures thereof.

19. The system of Claim 15 wherein the application of the microbially enhanced inorganic fertilizer composition in an amount at least 25% less by weight than the application to a plant of a non-microbially enhanced inorganic fertilizer composition further results in comparable plant growth or yield in an equivalent time period.

20. A plant nutrient reduction system comprising:

a microbially enhanced inorganic fertilizer composition for application to a plant comprising,

a nitrogen:phosphorus: potassium (N:P:K) ratio wherein nitrogen is from 0 to

about 32, phosphorus from 0 to about 13, and potassium from 0 to about 12, wherein at least one of nitrogen, phosphorus or potassium is at least about 2, and
at least about 1×10^5 microorganisms per gram of fertilizer composition,
wherein the application to a plant of the microbially enhanced inorganic fertilizer composition in an amount at least 25% less by weight than the application to a plant of a non-microbially enhanced inorganic fertilizer composition, results in residual levels of nitrogen, phosphorus, or potassium in the soil substantially less than that which results from the application to a plant of a non-microbially enhanced fertilizer composition.

21. The system of Claim 20 wherein the N:P:K ratio comprises nitrogen from about 6 to about 32, phosphorus from about 4 to about 13, and potassium from about 3 to about 12.

22. The system of Claim 20 wherein the microorganisms are present from at least about 1×10^5 to about 5×10^7 microorganisms per gram of fertilizer composition.

23. The system of Claim 22 wherein the microorganisms are selected from the group consisting of bacteria, fungi, viruses or mixtures thereof.

24. The system of Claim 20 wherein the application of the microbially enhanced inorganic fertilizer composition in an amount at least 25% less by weight than the application to a plant of a non-microbially enhanced inorganic fertilizer composition further results in comparable plant growth or yield in an equivalent time period.

25. The system of Claim 20 wherein the application of the microbially enhanced inorganic fertilizer composition in an amount at least 25% less by weight than the application to a plant of a non-microbially enhanced inorganic fertilizer composition results in comparable levels of nitrogen, phosphorus, or potassium in the plant.